

Name: _____

Date: _____

Algebra 1B Pd: _____

Weekend Word Problem #3: Standard Form of a Linear Equation

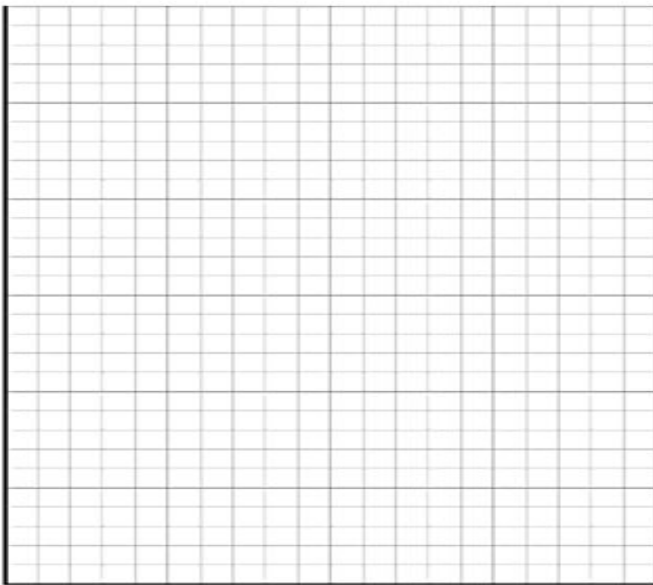
The Situation: Maxim runs at an average rate of 8 mi/hr. He walks at an average rate of 4 mi/hr. (Remember: distance = rate * time)

1. Define a variable for the amount of time spent running.

2. Define a variable for the amount of time spent walking.

3. Write an equation in standard form to relate the times he could spend running and walking if he travels a distance of 24 miles. ($8t + 4t = 24$).

4. Graph your standard form equation using the x- and y- intercepts. (Running: x-axis; walking: y-axis). **Use a straight edge.**



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5. Using either your equation or your graph, calculate how many hours Maxim spends running if he spends 2 hours walking.

6. Using either your equation or your graph, calculate how many hours Maxim spends walking if he spends $\frac{1}{2}$ hour running.

7. Explain your process of answering question #5. Use at least THREE complete sentences and algebraic terms.
